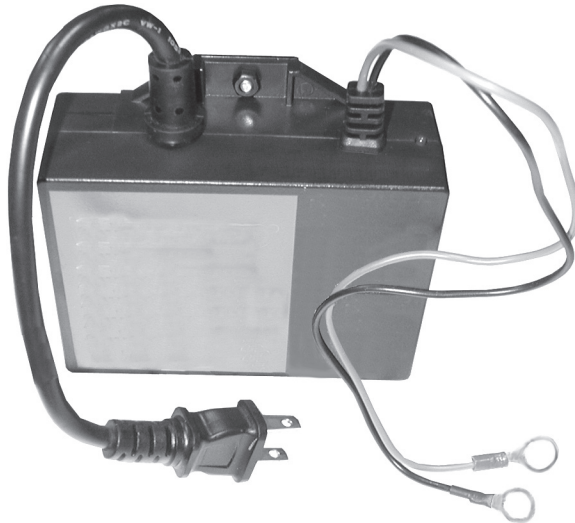


CHICAGO POWER ELECTRIC SYSTEMS

ONBOARD BATTERY CHARGER 1.5 AMPS

Model 92426

ASSEMBLY AND OPERATING INSTRUCTIONS



3491 Mission Oaks Blvd., Camarillo, CA 93011
Visit our Web site at <http://www.harborfreight.com>

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For technical questions and replacement parts, please call 1-800-444-3353

Specifications

Item	Description
Power Conversion	120 VAC to 12 VDC at 1.5 amps
Power Plug	Two-prong, non-polarized, 18 AWG x 2; Cord: 8" (L)
Overall Dimensions	4-7/8 (W) x 1-3/4 (D) x 3-1/2 (H) inches; With mounting ears: 4-5/8 (H) inches
Features	Charge 12 VDC batteries without overcharging Automatic shut off Installs next to battery
Weight	1.7 lbs.

Save This Manual

You will need the manual for the safety warnings and precautions, assembly instructions, operating and maintenance procedures, parts list and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep the manual and invoice in a safe and dry place for future reference.

Safety Warnings and Precautions

WARNING: When using tool, basic safety precautions should always be followed to reduce the risk of personal injury and damage to equipment.

Read all instructions before using this tool!

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
2. **Do not operate power appliances in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power appliances create sparks which may ignite the dust or fumes.
3. **Keep bystanders, children, and visitors away while operating a power appliance.** Distractions can cause you to lose control. Protect others in the work area from debris such as chips and sparks. Provide barriers or shields as needed.
4. **Grounded appliances must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt whether the outlet is properly grounded.** If the appliance should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
5. **Double insulated appliances are equipped with a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way.** Double insulation eliminates the need for the three wire grounded power cord and grounded power supply system.
6. **Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators.** There is an increased risk of electric shock if your body is grounded.

7. **Do not expose power appliances to rain or wet conditions.** Water entering a power appliance will increase the risk of electric shock.
8. **Do not abuse the Power Cord. Never use the Power Cord to carry the appliance or pull the Plug from an outlet. Keep the Power Cord away from heat, oil, sharp edges, or moving parts. Replace damaged Power Cords immediately.** Damaged Power Cords increase the risk of electric shock.
9. **When operating a power appliance outside, use an outdoor extension cord marked “W-A” or “W”.** These extension cords are rated for outdoor use, and reduce the risk of electric shock.

Personal Safety

10. **Stay alert. Watch what you are doing, and use common sense when operating a power appliance. Do not use a power appliance while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power appliances may result in serious personal injury.
11. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
12. **Avoid accidental starting. Be sure the Power Switch is off before plugging in.** Carrying power appliances with your finger on the Power Switch, or plugging in power appliances with the Power Switch on, invites accidents.
13. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the power appliance in unexpected situations.
14. **Use safety equipment. Always wear eye protection when working with batteries.** Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.
15. **Do not allow 12 volt DC leads to come into contact with each other.** 12 Volt short circuits can cause severe burns and other injuries.

Product Use and Care

16. **When using, only place the Charger on a flat, level, solid surface.**
17. **Do not force the Charger. Use the correct product for your application.**
18. **Do not use the Charger if the Power Switch does not turn it on or off.** Any product that cannot be controlled with the Power Switch is dangerous and must be replaced.
19. **Disconnect the Power Cord Plug from the power source before making any adjustments, changing accessories, or storing the appliance.** Such preventive safety measures reduce the risk of starting the appliance accidentally.
20. **Store idle products out of reach of children and other untrained persons.** The Charger can be dangerous in the hands of untrained users.

21. **Maintain appliances with care.** Do not use a damaged Charger. Tag damaged products "Do not use" until repaired.
22. **Check for damaged power cords or leads, breakage of parts, and any other condition that may affect the Charger's operation. If damaged, have the product serviced before using.**

Service

24. **Service must be performed only by qualified service technician.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
25. **When servicing this product, use only identical replacement parts.** Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

Specific Safety Precautions for the Battery Charger


<p>Caution: Only use the Battery Charger in a well ventilated area to prevent the accumulation of acidic gasses.</p>

1. Maintain labels and nameplates on the Battery Charger. These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
2. Always wear safety impact eye goggles and heavy work gloves when working on or around lead-acid batteries. Wear long sleeve shirt, long pants and work shoes. Using personal safety devices reduce the risk for injury. Safety impact eye goggles and heavy work gloves are available from Harbor Freight Tools.
3. Maintain a safe working environment. Keep the work area well lit. Make sure there is adequate surrounding workspace. Always keep the work area free of obstructions, grease, oil, trash, and other debris. Do not use a power tool in areas near flammable chemicals, dusts, and vapors. Do not use this product in a damp or wet location.
4. Always unplug the Battery Charger from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.
5. Avoid contact with Battery Acid. If splashed, unplug Onboard Battery Charger and immediately wash effected area with clean water. Continue washing area until medical help arrives.
6. Turn vehicle ignition off before making cable connections. Vehicle's engine must be cooled down before making cable connections.
7. Connect Battery Charger cables to proper polarities. Connect black cable to the negative battery terminal, and the red cable to the positive battery terminal (For a negative grounded system). Failure to do so could result in sparks, possible fire and severe personal injury.
8. Keep cables clear of fan blades, belts, pulleys, and other moving parts of the engine that may cause injury, or damage to the Battery Charger.
9. Use Battery Charger in well ventilated areas to prevent the accumulation of acidic gasses.

10. Do not allow the Black and Red battery cables or terminals to touch. Failure to adhere to these directions could result in severe personal injury. If this happens, sparks will occur that can melt connection lugs, or other metal objects, and create the potential for fire.
11. Use only with vehicles and boats with 12 volt electrical systems.
12. Remove the keys from the vehicle.
13. Keep extension cord off the ground and away from water when recharging the unit.
14. Always connect the Line Cord to a Ground Fault Circuit Interrupter (GFCI) protected electrical outlet.
15. Do not attempt to start a vehicle while recharging the unit's internal battery.
16. Periodically check on the progress of the trickle charge. Do not leave this product unattended for hours without periodically checking on it's operation.

Note: The charger is designed to work automatically, cycling on and off by sensing the battery voltage. It is mentioned above to not leave this product unattended for hours; this is because in some circumstances the Battery Charger can overheat if it is attempting to recharge a low battery, or one that is damaged or has sulfonated plates. **The charger is to be used on fully charged batteries in good condition. Its only purpose is to maintain the level of charge at approximately 12 volts.**

GROUNDING

 **WARNING!** Improperly connecting the grounding wire can result in the risk of electric shock. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided with the appliance. Never remove the grounding prong from the plug. Do not use the appliance if the power cord or plug is damaged. If damaged, have it repaired by a service facility before use. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

GROUNDING TOOLS: TOOLS WITH THREE PRONG PLUGS

1. Tools marked with "Grounding Required" have a three wire cord and three prong grounding plug. The plug must be connected to a properly grounded outlet. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user, reducing the risk of electric shock. **(See Figure A.)**

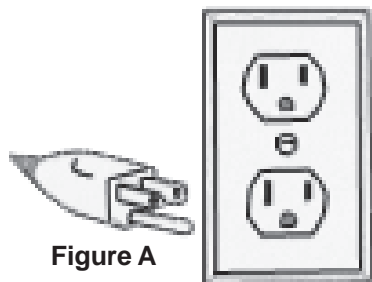


Figure A

2. The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the appliance. The green wire in the cord must be the only wire connected to the appliance's grounding system and must never be attached to an electrically "live" terminal. **(See Figure A.)**

3. Your tool must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like those in the following illustration. (See Figure A.)

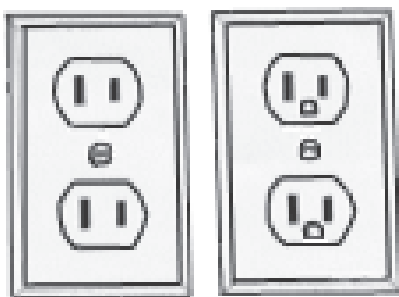


Figure B

DOUBLE INSULATED TOOLS: TOOLS WITH TWO PRONG PLUGS

4. Tools marked “Double Insulated” do not require grounding. They have a special double insulation system which satisfies OSHA requirements and complies with the

applicable standards of Underwriters Laboratories, Inc., the Canadian Standard Association, and the National Electrical Code. (See Figure B.)

5. Double insulated tools may be used in either of the 120 volt outlets shown in the following illustration. (See Figure B.)




EXTENSION CORDS

1. **Grounded** tools require a three wire extension cord. **Double Insulated** tools can use either a two or three wire extension cord.
2. As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords with inadequately sized wire causes a serious drop in voltage, resulting in loss of power and possible appliance damage. (See Figure C, below.)
3. The smaller the gauge number of the wire, the greater the capacity of the cord. For example, a 14 gauge cord can carry a higher current than a 16 gauge cord. (See Figure C.)
4. When using more than one extension cord to make up the total length, make sure each cord contains at least the minimum wire size required. (See Figure C.)
5. If you are using one extension cord for more than one appliance, add the nameplate amperes and use the sum to determine the required minimum cord size. (See Figure C.)
6. If you are using an extension cord outdoors, make sure it is marked with the suffix “W-A” (“W” in Canada) to indicate it is acceptable for outdoor use.
7. Make sure your extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified electrician before using it.
8. Protect your extension cords from sharp objects, excessive heat, and damp or wet areas.

Figure C

Recommended Minimum Wire Gauge for 120 Volt Extension Cords*					
Nameplate Amperes (At Full Load)	Extension Cord Length				
	25 Feet	50 Feet	75 Feet	100 Feet	150 Feet
0 - 2.0	18	18	18	18	16
2.1 - 3.4	18	18	18	16	14
3.5 - 5.0	18	18	16	14	12
6.1 - 7.0	18	16	14	12	12
7.1 - 12.0	16	14	12	10	X
12.1 - 16.0	14	12	10	X	X
16.1 - 20.0	12	10	X	X	X

SYMBOLOLOGY

	Double Insulated
	Canadian Standards Association
	Underwriters Laboratories, Inc.
V ~	Volts Alternating Current
A	Amperes
no load xxxx per min.	No Load Revolutions per Minute

Battery Precautions

1. Read all instructions and warnings on the battery before charging it.
2. Do not expose the battery to rain or wet conditions.
3. To avoid damage of cable and plug, never pull the cable to disconnect the Battery Charger.
4. Do not use the Battery Charger if the cables or plugs are damaged.
5. Repairs should be carried out by a qualified technician.
6. Do not touch the battery poles with any conductive source.
7. If the battery is removed, do not store the battery in a box with other metal objects.

8. Do not throw the battery in a fire or in the general trash. Contact your local hazardous waste disposal authority for proper disposal.
9. Do not drain the battery completely before recharging. Recharge fully.

Warning: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

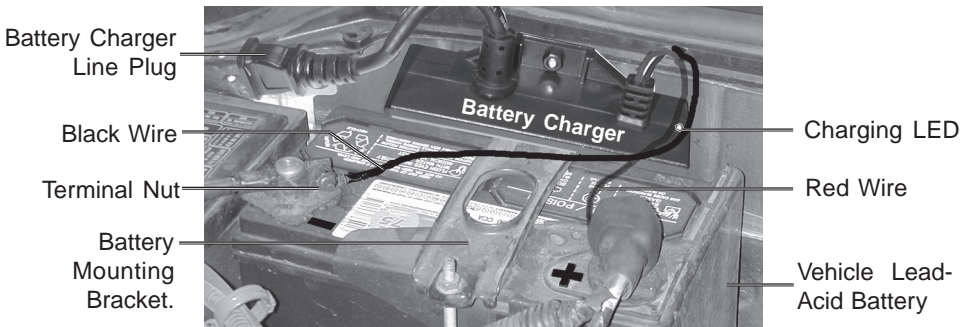
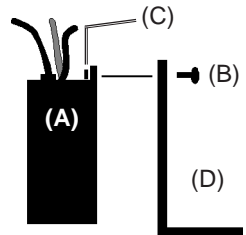
Unpacking

When unpacking, check to make sure the following parts are included: *Battery Charger, L-bracket, and Nut and Screw.* If any parts are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual.

Installation

Caution: Before proceeding, set the vehicle emergency brake and remove the ignition keys. Do not touch the battery poles with any conductive source.

1. Mount the L-bracket (D) to the side of the Battery Charger (A) using the supplied Screw (B) and Nut (C).
2. Find an area near the (lead-acid) battery that has room for the Battery Charger to fit next to it.
3. Loosen the battery mounting bracket and lift the battery enough to slide the Battery Charger L-bracket (D) under the battery.
4. Lower the battery and retighten the battery mounting bracket.



5. Slide the red cover back to expose the positive (+) battery terminal.

Note: It may be necessary to clean the battery terminals before connecting the Battery Charger wires.

6. Unscrew the positive (+) terminal nut and place the red wire (lug) from the Battery Charger over the (+) terminal screw.

Replace the nut and securely tighten. Slide the red cover back over the positive terminal.

7. Unscrew the negative (-) terminal nut and place the black wire (lug) from the Battery Charger over the (-) terminal screw. Replace the nut and securely tighten.

Operation

Caution: Do not attempt to start the vehicle engine with Battery Charger connected to an extension cord and powered up. If the battery is damaged, or is low on battery fluid, do not attempt to charge it.

Caution: The Onboard Battery Charger is not acid resistant. Be careful not to spill acid during battery maintenance, and inspect the Onboard Battery Charger carefully before use.

1. In a ventilated area, raise and lock open the vehicle hood.
2. Plug a 10-amp extension cord into the plug of the Battery Charger.
3. Plug the extension cord into a GFCI protected electrical outlet.

The 1.5 A trickle charge will begin. The red charging LED will come on. When the battery is almost fully charged, the LED will flash on and off.

When the battery is fully charged, the red charging LED turns off, and the trickle charge automatically stops.

4. Unplug the extension cord from the Battery Charger Plug when the battery is fully charged.

Secure the Battery Charger Plug so its prongs do not touch anything electrical.

Maintenance

1. Periodically, use a damp cloth to wipe down the Battery Charger.
2. Avoid corrosion of the battery terminals. Sprinkling baking soda around the terminals will help absorb any acids.
3. The Battery Charger has no replaceable or serviceable parts.